

REMARKS

Claims 1, 6-9, 14, 15 and 20 have been amended. No claims have been added or cancelled. Therefore, claims 1-20 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

Section 101 Rejection:

The Examiner rejected claim 8 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. The Examiner asserts:

The rejection for claim 8 is maintained because the various “means for” are broadly and reasonably understood as being software per se. Therefore, the claim is interpreted to be a software system per se, which is non-statutory. A piece of hardware should be added to the claim, or the software system claimed on a computer readable storage medium.

Applicants remind the Examiner that MPEP 2106.C specifically states:

Where means plus function language is used to define the characteristics of a machine or manufacture invention, claim limitations must be interpreted to read on only the structures or materials disclosed in the specification and “equivalents thereof.” (Emphasis Added)

Also, the court held (*In re Donaldson*, 16 F.3d 1189, 1193, 29 USPQ2d 1845, 1848 (Fed. Cir. 1994)):

The plain and unambiguous meaning of paragraph six is that one construing means-plus-function language in a claim must look to the specification and interpret that language in light of the corresponding structure, material, or acts described therein, and equivalents thereof, to the extent that the specification provides such structure.

Clearly, the Examiner must interpret means plus function as reading on the structures and materials disclosed and not “software per se”. As noted in Applicants’ previous Response, claim 8 clearly recites a system having structure, that is, one including means to perform the various functions recited therein. Instead of software *per se*, the means are, for example, the computer structure (e.g. computer hardware) to perform the recited functions. For example, the means may correspond to computer

hardware configured to run software to perform the recited functions. Correspondingly, Applicants assert that the section 101 rejection is improper.

Section 103(a) Rejections:

The Examiner rejected claims 1-3, 5-11, 13-17 and 19-20 under 35 U.S.C. § 103(a) as being unpatentable over Moore et al. (U.S. Publication 2003/0092438) (hereinafter “Moore”) in view of Lomet (U.S. Patent 6,578,041), and claims 4, 12 and 18 as being unpatentable over Moore in view of Lomet and further in view of AAPA (Applicant Admitted Prior Art).

Regarding claim 1, Moore in view of Lomet fails to teach or suggest **generating a storage checkpoint of file system data of the production database**. In the instant Office Action, the Examiner relies on paragraph [0019] of Moore to teach the checkpoint:

When the primary processor 58 reaches a steady state (i.e., stable wireless communications) the stable data is written to the replica state database 78 within the control block 70. The checkpoint service 82 is notified that the state data is available for transfer to the secondary controller 54. The checkpoint service 82 replicates the state data and stores it in the replica state database 80.”

Thus, in Moore a *checkpoint service* copies data from a first database (replica state database 78) to a second database (replica state database 80). Moore nowhere describes or suggests a checkpoint of file system data of the production database as recited in the claims; in fact, Moore nowhere mentions a file system at all. Instead, Moore teaches copying of data from one database to another. Thus, Applicants assert that Moore in view of Lomet fail to teach or suggest the checkpoint of file system data recited in the claims.

Additionally, Moore in view of Lomet fails to teach or suggest **generating a database clone, wherein the data of the database clone comprises data from the storage checkpoint**. With regard to this feature, the Examiner again cites paragraph [0019] of Moore which only describes the replication of data from one database to another. Moore fails to teach generation of a checkpoint or a database clone; in fact,

Moore fails to suggest any generation of any kind. Moore simply states that data may be transferred from one (already extant) database in a first controller to a second (already extant) database in a second controller. Clearly, Moore does not teach generating a checkpoint of file system data or generation of a database clone as recited in the claims. Correspondingly, Applicants assert that Moore in view of Lomet fails to teach or suggest this feature of claim 1.

With further regard to claim 1, Moore in view of Lomet fails to teach or suggest **loading new data to the database clone, wherein said load updates the storage checkpoint, and wherein the production database is available for access by users during said load.** The Examiner again cites paragraph [0019] of Moore. As argued above, Moore fails to teach generating the checkpoint or database clone recited in the claims and therefore cannot teach this feature of claim 1. Additionally, in replicating data from the first database to the second database, Moore does not disclose that this copy updates the storage checkpoint of the file system data as recited in the claims. As argued above, Moore fails to even mention file system data. Thus, for at least the reasons above, Moore in view of Lomet fails to teach or suggest this feature of claim 1.

Applicants note that the Examiner admits that Moore does not expressly teach wherein the production database is available for access by users during the loading and instead relies on Lomet to teach this limitation. The Examiner asserts that Lomet teaches a database is available for access during loading to a clone in FIG. 2, column 3, lines 25-30, and column 6, lines 32-42 and 45-55. However, these citations do not describe operations of a refresh mechanism for a production database using a database clone, as recited in Applicants' claims, but instead describe a back-up mechanism in which a stable database is divided into disjoint partitions, each of which may be backed-up independently while update activity continues. Contrary to the Examiner's assertion, there is nothing in this citation that teaches the use of a database clone, as would be understood by one of ordinary skill in the art. More specifically, Lomet fails to disclose the load recited in the claims, where the load updates the storage checkpoint. Similar to Moore, Lomet only teaches a first (stable) database and a backup database. Lomet

nowhere indicates a checkpoint of file system data and a database clone, where loading new data into the database clone updates the storage checkpoint. Therefore, the combination of Moore and Lomet does not teach or suggest all the limitations of Applicants' claim 1.

The Examiner asserts that it would not have been obvious to modify Moore to include the above teachings of Lomet to achieve high availability, as taught by Lomet (column 3, lines 35-40). However, Applicants assert that as the system of Moore is directed toward stabilization of wireless communication during software application changes, it would not be obvious to apply teachings directed toward improvement in availability of data through on-line back-ups, as taught by Lomet, to Moore's system. In the instant Office Action, the Examiner states the same motivation as in the previous Office Action **without addressing the arguments presented above**. Stabilization of wireless communications during software application changes does not relate towards Lomet's system of availability of on-line back-ups. For at least the reasons above, Moore in view of Lomet fails to teach or suggest this feature of claim 1.

Furthermore, Moore in view of Lomet also fails to teach or suggest **switching the storage checkpoint to be the file system data for the production database**. As argued above, Moore in view of Lomet fails to teach the storage checkpoint recited in the claims and therefore cannot teach this feature. However, Applicants note that the Examiner cites paragraph [0020] of Moore with regard to this feature. Paragraph [0020] states:

In the event of a fault or failure in the primary controller 52... Upon shutdown of the primary controller 52, the secondary controller 54 assumes processing control of the system 50. The secondary controller 54 reads the replica state database 80, rebuilds its local database 68, and is therefore able to take control with little or no interruption of wireless service."

Thus, this citation clearly describes recovery from a fault or failure condition in which a secondary controller assumes processing control of wireless communication stabilization system 50. It has nothing to do with a refresh mechanism switching the storage checkpoint to be the file system data for the production database, as recited in

Applicants' claim 1. Instead, a new database is used in Moore's system, i.e., the database in secondary controller 54 and not the database in the primary controller 52 which the Examiner cited as the production database. Furthermore, there is nothing in this citation that teaches or suggests the file system data of the production database at all, much less one that corresponds to a storage checkpoint generated by a refresh mechanism. Thus, for at least the reasons above, Moore in view of Lomet fails to teach or suggest this feature of claim 1.

For at least the following reasons, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested. Independent claims 8, 9 and 15 include limitations similar to claim 1, and so the arguments presented above apply with equal force to these claims, as well.

Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejection has been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

CONCLUSION


Applicants submit the application is in condition for allowance, and prompt notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5760-12400/RCK

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☐ Petition for Extension of Time
- ☐ Notice of Change of Address
- ☐ Other:

Respectfully submitted,



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